

ISUZU MOTORS LIMITED

EXECUTIVE ORDER U-R-006-0177 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR			FUEL TYPE	USEFUL LIFE (hours)				
2004	4SZXL04.3FTA	4.3	Diesel	8000				
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION					
Direct Diesel Injection, Turbocharger			Loader, Compressor, Other Industrial Equipment					

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER	EMISSION STANDARD				XHAUST (g/kW-l	· · · · · · · · · · · · · · · · · · ·	OPACITY (%)			
CLASS	CATEGORY		HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50
		CERT			6.3	1,4	0.27	12	10	38

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this ______ day of December 2003.

Allen Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: Isuzu Motors Limited

Engine category: Nonroad Cl

EPA Engine Family: 4SZXL04.3FTA

Mfr Family Name: NA

Process Code: New Submission

ATTACHMENT

1-R-006-017

9.Emission Control Device Per SAE J1930				EM TC DF		IN, COL	FVICTI		EM, IC, DFI		この,つこ,を1	EN TO DE	בַּבְיבִּיבִי	EN TO DE
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930		34 0@1800	04:0@1000	34.0@1800	22 0@4000	ാം.ഡ്രീ വെ	33 0@1600		43.5@2000	33 1@1000	33.4@1000	33.7@1800	300	32.7@1600
7.Fuel Rate: mm/stroke@peak torque		85 0@1800	0001	85.0@1800	84 3@1800	04:5@ 1000	92.7@1600	070000	97.0(@Z000	ጸጓ 5@1800	000	84.2@1800	222	91.8@1600
6.Torque @ RPM (SEA Gross)		297.1@1800	2007 4 6000	297.1@1800	294 7@1800	0001	286.8@1600	30E 1@2000	303.4@Z000	294 7@1800		297.1@1800) (286.8@1600
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)		42.3@2200	1E E@0400	45.0@2400	43.9@2300	000000	42.0@2200	50 8@2500	00.00	43.2@2300	00000	41.9@2200	00000	41.5@2200
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	January Company of the Company of th	86.5@2200	85 4@2400	00:1@z-100	85.8@2300		00.00	91.4@2500		84.5(2)2300	05 6 6 000	00.00	04 0@0000	04.3@2200
3.BHP@RPM }vV) (SAE Gross)	400 10000	108.5@2200	109 2@2400	001	107.5@2300	DD-4BG1T 74 1108 3@2200	100.22 JUNE 22 UN	DD-4BG1T q ₀ √ 120.8@2500	407 500000	107.5@62300	108 5@2200	100.50	106 3@2200	100.0 20.7 20.0
3.BHP@RPM 1.Engine Code 2.Engine Model $\mathbb{A}_{\mathbb{N}}$ (SAE Gross)	THOUSE	בסיים	DD-4BG1T	1,00,00	UU-4BG11	DD-4BG1T T4	= 52	DD-4BG1T qu	י דויטמו ממ	1.00+-00	DD-4RG1T		DD-4BG1T	
1.Engine Code	4BG1TARFA-02	70	4BG1TABFA-03	ARC1TABEA OA	+0-K-10K-1-00+	4BG1TABFB-01		4BG11ABFC-01	4BG1TABEC-02)	4BG1TABFC-03		4BG1(ABFD-01	